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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,476	10/17/2005	Giuseppe Penzo	FE 6102 (US)	8660
34872 7590 04/05/2007 BASELL USA INC. INTELLECTUAL PROPERTY 912 APPLETON ROAD ELKTON, MD 21921			EXAMINER TESKIN, FRED M	
			ART UNIT	PAPER NUMBER
			1713	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/05/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/553,476

Applicant(s)

PENZO ET AL.

Examiner

Fred M. Teskin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 and 19-28 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>20060309</u> . | 6) <input type="checkbox"/> Other: ____.  |

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The preliminary amendment of October 17, 2005 having been entered, claims 15-28 are currently pending and under examination herein.

The disclosure is objected because of the following informalities: a brief description of the drawings has not been provided. See 37 CFR 1.74.

Appropriate correction is required.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0825204, in view of WO 02/41986.

EP '204 discloses a continuous process for polymerizing olefins in a fluidized bed reactor, wherein a gaseous stream withdrawn from the reactor is recycled by cooling and separating condensed liquid from the gaseous stream in a separator integral with the reactor and located under the fluidization grid (i.e., distributor plate), as in the claimed process. See paragraphs 0013 and Figs. 1-2 of EP '204. Per paragraph 0026, it is preferred that substantially the whole of the recycled gaseous stream is cooled and separated and substantially the whole of the separated liquid is introduced into the fluidized bed.

EP '204 differs from the claimed subject matter only in failing to disclose the claimed step of feeding at least a portion of the separated, condensed liquid above the fluidized bed via an external pipe connecting a bottom of the fluidized bed reactor to a position above the upper limit of the fluidized bed.

WO '986 discloses a fluidized bed reactor characterized by one or more external pipes connecting the lower part of the reaction chamber to a top part thereof and/or the outlet section, situated above the reaction chamber; see page 3, lines 19-22 and Fig. 1/1. By affording a greater supply of liquid to the reactor (relative to supplied amount of gas), the presence of the connecting pipe(s) is taught to result in higher production rates than in known reactors of equal dimensions (page 3, ll. 23-27). Condensed mode operation of the disclosed reactor in a continuous process for polymerizing olefins is

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detailed on pages 7-9. Recycling a gas-liquid mixture to the reactor is detailed at page 8, lines 30+.

Thus, WO '986 teaches, as alternative embodiments, terminating the external pipe in the wall of the reaction chamber or the outlet section of the reactor (pp. 4-5, bridging paragraph), for the purpose of transporting condensed liquid to the upper portion of a fluidized bed reactor in order to enhance production rate.

Since EP '204 is similarly concerned with achieving higher levels of productivity via enhanced cooling levels (see, e.g., page 10, ll. 18+), it would have been obvious to an ordinarily skilled practitioner at the time of applicants' invention to modify the process disclosed therein by feeding the condensed, separated liquid through an external pipe(s) as per WO '986 to a position above the upper limit of the fluidized bed, as claimed. The expectation of thereby providing an alternative continuous polymerization process with comparable improvements in production rate would have provided the requisite motivation to those of ordinary skill in the art to modify the primary reference so as to produce the instantly claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Mortierol et al is cited as pertinent to gas phase, fluidized bed reactors provided with an external conduit, which connects a lower orifice to an upper orifice which are situated at different heights above a fluidization grid, for circulation of polymer therethrough (note col. 2, ll. 10+).

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Claims 16-18 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/03-30-07

  
**FRED TESKIN**  
**PRIMARY EXAMINER**  
(713)